

WHAT IS CLAIMED IS:

1. A method of conducting a transaction between a user of a remote communications device and a second party, comprising:

creating a transaction data structure based on input from the user that defines the transaction;

creating a deferred transaction data structure, corresponding to the transaction data structure that defines a deferred transaction, when establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted;

storing the deferred transaction data structure in a memory;

establishing communication between the remote communications device and the second party; and

transmitting the deferred transaction data structure to the second party when the communication between the remote communications device and the second party is established.

2. The method of claim 1, wherein the deferred transaction data structure is automatically transmitted to the second party when the communication between the remote communications device and the second party is established.

3. The method of claim 1, wherein the deferred transaction data structure is encrypted prior to at least one of storing it in the memory and transmitting it to the second party.

4. The method of claim 1, wherein the second party is taken from the group consisting of one or more settlement entities, one or more merchants, one or more

financial institutions , one or more other entities, and a person.

5. The method of claim 1, further comprising:

creating a new transaction data structure based on at least one of (i) input from the user that defines a real time transaction data structure after the deferred transaction data structure is stored in the memory, and (ii) the deferred transaction data structure;

creating a combined transaction data structure by aggregating the real time transaction data structure and the deferred transaction data structure if the new transaction data structure is not based on the deferred transaction data structure; and

transmitting at least one of the combined transaction data structure and the new data structure to the second party.

6. The method of claim 5, further comprising assigning a transaction identification field to each transaction data structure prior to transmitting the combined transaction data structure to the second party.

7. The method of claim 5, further comprising receiving combined response data from the second party containing transaction results concerning the real time transaction data structure and the deferred transaction data structure.

8. The method of claim 7, wherein the transmission results are received in encrypted form and are decrypted prior to further processing.

9. The method of claim 7, further comprising parsing the combined response data and matching the respective transaction results with the real time transaction and the deferred transaction based on the transaction identification fields.

10. The method of claim 9, wherein the transaction result concerning the real time transaction data structure is matched with the real time transaction before the transaction result concerning the deferred transaction data structure is matched with the deferred transaction.

11. The method of claim 9, wherein at least one software application is employed in creating the real time transaction data structure and the deferred transaction data structure, the method further comprising assigning an application identification field to each deferred transaction data structure prior to storing the deferred transaction data structure in the memory.

12. The method of claim 11, wherein the at least one software application is a services layer software application.

13. The method of claim 11, wherein the application identification fields are removed from each deferred transaction data structure prior to transmitting the combined transaction data structure to the second party.

14. The method of claim 13, further comprising matching the transaction result concerning the real time transaction data structure with the at least one software application to facilitate completion of the real time transaction.

15. The method of claim 13, further comprising matching the transaction result concerning the deferred transaction data structure with the at least one software application and executing the at least one software application to facilitate completion of the deferred transaction.

16. The method of claim 1, further comprising:
creating a combined transaction data structure by aggregating the deferred transaction data structure with any other transaction data structures; and

transmitting the combined transaction data structure to the second party.

17. The method of claim 16, further comprising assigning a transaction identification field to each transaction data structure prior to transmitting the combined transaction data structure to the second party.

18. The method of claim 17, further comprising receiving combined response data from the second party containing transaction results concerning the deferred transaction data structure and the any other transaction data structures.

19. The method of claim 18, further comprising parsing the combined response data and matching the respective transaction results with the deferred transaction and any other transactions associated with the any other transaction data structures.

20. The method of claim 19, wherein at least one software application is employed in creating the deferred

transaction data structure, the method further comprising assigning an application identification field to each deferred transaction data structure prior to storing the deferred transaction data structure in the memory.

21. The method of claim 20, wherein the application identification fields are removed from each deferred transaction data structure prior to transmitting the combined transaction data structure to the second party.

22. The method of claim 21, further comprising matching the transaction result concerning the deferred transaction data structure with the at least one software application and executing the at least one software application to facilitate completion of the deferred transaction.

23. The method of claim 1, further comprising:

establishing a digital certificate and associating the digital certificate with the transaction data structure, the digital certificate identifying the transaction as being authorized; and

associating the digital certificate with the deferred transaction data structure when establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted.

24. The method of claim 23, wherein at least one software application is employed in creating the deferred transaction data structure and establishing the digital certificate, the digital certificate being at least one of (i) an application specific digital certificate used by a particular one of the software applications, (ii) a general

digital certificate used by one or more of the software applications, (iii) a remote communications device specific digital certificate associated specifically with the remote communications device, and (iv) a remote communications device independent digital certificate.

25. The method of claim 24, further comprising storing the digital certificate in the memory when (i) establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted, and (ii) the digital certificate is an application specific digital certificate.

26. The method of claim 24, further comprising storing a pointer to the digital certificate in the memory when (i) establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted, and (ii) the digital certificate is at least one of a general digital certificate and a remote communications device specific digital certificate.

27. The method of claim 23, further comprising transmitting the deferred transaction data structure including the digital certificate to the second party when the communication between the remote communications device and the second party is established.

28. A storage medium containing a software program capable of causing a remote communications device to execute actions in conducting a transaction between a user of the remote communications device and a second party, the actions comprising:

creating a transaction data structure based on input from the user that defines the transaction;

creating a deferred transaction data structure, corresponding to the transaction data structure that defines a deferred transaction, when establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted;

storing the deferred transaction data structure in a memory;

establishing communication between the remote communications device and the second party; and

transmitting the deferred transaction data structure to the second party when the communication between the remote communications device and the second party is established.

29. The storage medium of claim 28, wherein the deferred transaction data structure is automatically transmitted to the second party when the communication between the remote communications device and the second party is established.

30. The storage medium of claim 29, wherein the deferred transaction data structure is encrypted prior to at least one of storing it in the memory and transmitting it to the second party.

31. The storage medium of claim 28, wherein the second party is taken from the group consisting of one or more settlement entities, one or more merchants, one or more financial institutions, one or more other entities, and a person.

32. The storage medium of claim 28, the actions further comprising:

creating a new transaction data structure based on at least one of (i) input from the user that defines a real time transaction data structure after the deferred transaction data structure is stored in the memory, and (ii) the deferred transaction data structure;

creating a combined transaction data structure by aggregating the real time transaction data structure and the deferred transaction data structure if the new transaction data structure is not based on the deferred transaction data structure; and

transmitting at least one of the combined transaction data structure and the new data structure to the second party.

33. The storage medium of claim 32, wherein the actions further comprise assigning a transaction identification field to each transaction data structure prior to transmitting the combined transaction data structure to the second party.

34. The storage medium of claim 32, wherein the actions further comprise receiving combined response data from the second party containing transaction results concerning the real time transaction data structure and the deferred transaction data structure.

35. The storage medium of claim 34, wherein the transmission results are received in encrypted form and are decrypted prior to further processing.

36. The storage medium of claim 34, wherein the actions further comprise parsing the combined response data

and matching the respective transaction results with the real time transaction and the deferred transaction based on the transaction identification fields.

37. The storage medium of claim 36, wherein the transaction result concerning the real time transaction data structure is matched with the real time transaction before the transaction result concerning the deferred transaction data structure is matched with the deferred transaction.

38. The storage medium of claim 36, wherein at least one software application is employed in creating the real time transaction data structure and the deferred transaction data structure, the actions further comprising assigning an application identification field to each deferred transaction data structure prior to storing the deferred transaction data structure in the memory.

39. The storage medium of claim 38, wherein the at least one software application is a services layer software application.

40. The storage medium of claim 38, wherein the application identification fields are removed from each deferred transaction data structure prior to transmitting the combined transaction data structure to the second party.

41. The storage medium of claim 40, wherein the actions further comprise matching the transaction result concerning the real time transaction data structure with the at least one software application to facilitate completion of the real time transaction.

42. The storage medium of claim 41, wherein the actions further comprise matching the transaction result concerning the deferred transaction data structure with the at least one software application and executing the at least one software application to facilitate completion of the deferred transaction.

43. The storage medium of claim 28, wherein the actions further comprise:

creating a combined transaction data structure by aggregating the deferred transaction data structure with any other transaction data structures; and

transmitting the combined transaction data structure to the second party.

44. The storage medium of claim 43, wherein the actions further comprise assigning a transaction identification field to each transaction data structure prior to transmitting the combined transaction data structure to the second party.

45. The storage medium of claim 44, wherein the actions further comprise receiving combined response data from the second party containing transaction results concerning the deferred transaction data structure and the any other transaction data structures.

46. The storage medium of claim 45, wherein the actions further comprise parsing the combined response data and matching the respective transaction results with the deferred transaction and any other transactions associated with the any other transaction data structures.

47. The storage medium of claim 46, wherein at least one software application is employed in creating the deferred transaction data structure, the method further comprising assigning an application identification field to each deferred transaction data structure prior to storing the deferred transaction data structure in the memory.

48. The storage medium of claim 47, wherein the application identification fields are removed from each deferred transaction data structure prior to transmitting the combined transaction data structure to the second party.

49. The storage medium of claim 48, wherein the actions further comprise matching the transaction result concerning the deferred transaction data structure with the at least one software application and executing the at least one software application to facilitate completion of the deferred transaction.

50. The storage medium of claim 28, wherein the actions further comprise:

establishing a digital certificate and associating the digital certificate with the transaction data structure, the digital certificate identifying the transaction as being authorized; and

associating the digital certificate with the deferred transaction data structure when establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted.

51. The storage medium of claim 50, wherein at least one software application is employed in creating the deferred transaction data structure and establishing the

digital certificate, the digital certificate being at least one of (i) an application specific digital certificate used by a particular one of the software applications, (ii) a general digital certificate used by one or more of the software applications, (iii) a remote communications device specific digital certificate associated specifically with the remote communications device, and (iv) a remote communications device independent digital certificate.

52. The storage medium of claim 51, wherein the actions further comprise storing the digital certificate in the memory when (i) establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted, and (ii) the digital certificate is an application specific digital certificate.

53. The storage medium of claim 51, wherein the actions further comprise storing a pointer to the digital certificate in the memory when (i) establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted, and (ii) the digital certificate is at least one of a general digital certificate and a remote communications device specific digital certificate.

54. The method of claim 50, wherein the actions further comprise transmitting the deferred transaction data structure including the digital certificate to the second party when the communication between the remote communications device and the second party is established.

55. A remote communications device including a microprocessor operating under the control of a software

program capable of causing the remote communications device to execute actions in conducting a transaction between a user of the remote communications device and a second party, the actions comprising:

creating a transaction data structure based on input from the user that defines the transaction;

creating a deferred transaction data structure, corresponding to the transaction data structure that defines a deferred transaction, when establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted;

storing the deferred transaction data structure in a memory;

establishing communication between the remote communications device and the second party; and

transmitting the deferred transaction data structure to the second party when the communication between the remote communications device and the second party is established.

56. The remote communications device of claim 55, wherein the deferred transaction data structure is automatically transmitted to the second party when the communication between the remote communications device and the second party is established.

57. The remote communications device of claim 55, wherein the deferred transaction data structure is encrypted prior to at least one of storing it in the memory and transmitting it to the second party.

58. The remote communications device of claim 55, wherein the second party is taken from the group consisting of one or more settlement entities, one or more merchants,

one or more financial institutions, one or more other entities, and a person.

59. The remote communications device of claim 55, the actions further comprising:

creating a new transaction data structure based on at least one of (i) input from the user that defines a real time transaction data structure after the deferred transaction data structure is stored in the memory, and (ii) the deferred transaction data structure;

creating a combined transaction data structure by aggregating the real time transaction data structure and the deferred transaction data structure if the new transaction data structure is not based on the deferred transaction data structure; and

transmitting at least one of the combined transaction data structure and the new data structure to the second party.

60. The remote communications device of claim 59, wherein the actions further comprise assigning a transaction identification field to each transaction data structure prior to transmitting the combined transaction data structure to the second party.

61. The remote communications device of claim 59, wherein the actions further comprise receiving combined response data from the second party containing transaction results concerning the real time transaction data structure and the deferred transaction data structure.

62. The remote communications device of claim 61, wherein the transmission results are received in encrypted form and are decrypted prior to further processing.

63. The remote communications device of claim 61, wherein the actions further comprise parsing the combined response data and matching the respective transaction results with the real time transaction and the deferred transaction based on the transaction identification fields.

64. The remote communications device of claim 63, wherein the transaction result concerning the real time transaction data structure is matched with the real time transaction before the transaction result concerning the deferred transaction data structure is matched with the deferred transaction.

65. The remote communications device of claim 63, wherein at least one software application is employed in creating the real time transaction data structure and the deferred transaction data structure, the actions further comprising assigning an application identification field to each deferred transaction data structure prior to storing the deferred transaction data structure in the memory.

66. The remote communications device of claim 65, wherein the at least one software application is a services layer software application.

67. The remote communications device of claim 65, wherein the application identification fields are removed from each deferred transaction data structure prior to transmitting the combined transaction data structure to the second party.

68. The remote communications device of claim 67, wherein the actions further comprise matching the

transaction result concerning the real time transaction data structure with the at least one software application to facilitate completion of the real time transaction.

69. The remote communications device of claim 67, wherein the actions further comprise matching the transaction result concerning the deferred transaction data structure with the at least one software application to facilitate completion of the deferred transaction.

70. The remote communications device of claim 55, wherein the actions further comprise:

creating a combined transaction data structure by aggregating the deferred transaction data structure with any other transaction data structures; and

transmitting the combined transaction data structure to the second party.

71. The remote communications device of claim 70, wherein the actions further comprise assigning a transaction identification field to each transaction data structure prior to transmitting the combined transaction data structure to the second party.

72. The remote communications device of claim 71, wherein the actions further comprise receiving combined response data from the second party containing transaction results concerning the deferred transaction data structure and the any other transaction data structures.

73. The remote communications device of claim 72, wherein the actions further comprise parsing the combined response data and matching the respective transaction results with the deferred transaction and any other

transactions associated with the any other transaction data structures.

74. The remote communications device of claim 73, wherein at least one software application is employed in creating the deferred transaction data structure, the method further comprising assigning an application identification field to each deferred transaction data structure prior to storing the deferred transaction data structure in the memory.

75. The remote communications device of claim 74, wherein the application identification fields are removed from each deferred transaction data structure prior to transmitting the combined transaction data structure to the second party.

76. The remote communications device of claim 75, wherein the actions further comprise matching the transaction result concerning the deferred transaction data structure with the at least one software application and executing the at least one software application to facilitate completion of the deferred transaction.

77. The remote communications device of claim 55, wherein the actions further comprise:

establishing a digital certificate and associating the digital certificate with the transaction data structure, the digital certificate identifying the transaction as being authorized; and

associating the digital certificate with the deferred transaction data structure when establishing communication between the remote communications device and the second

party is at least one of temporarily not obtainable and interrupted.

78. The remote communications device of claim 77, wherein at least one software application is employed in creating the deferred transaction data structure and establishing the digital certificate, the digital certificate being at least one of (i) an application specific digital certificate used by a particular one of the software applications, (ii) a general digital certificate used by one or more of the software applications, (iii) a remote communications device specific digital certificate associated specifically with the remote communications device, and (iv) a remote communications device independent digital certificate.

79. The remote communications device of claim 78, wherein the actions further comprise storing the digital certificate in the memory when (i) establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted, and (ii) the digital certificate is an application specific digital certificate.

80. The remote communications device of claim 78, wherein the actions further comprise storing a pointer to the digital certificate in the memory when (i) establishing communication between the remote communications device and the second party is at least one of temporarily not obtainable and interrupted, and (ii) the digital certificate is at least one of a general digital certificate and a remote communications device specific digital certificate.

81. The method of claim 77, wherein the actions further comprise transmitting the deferred transaction data structure including the digital certificate to the second party when the communication between the remote communications device and the second party is established.